

Abstract Submitted
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Analysis of a Sample of High Redshift, High Luminosity FeLoBAL Quasars JULIANNA VOELKER, HYUNSEOP CHOI, KAREN LEIGHLY, COLLIN DABBIERI, CORA DEFRANCESCO, Univ of Oklahoma — Quasars are particularly luminous Active Galactic Nuclei (AGNs). By modeling their spectra and absorption lines, we can derive the physical parameters of the absorbing gas as well as the velocities of quasar outflows, which tell us how powerful the outflow is. FeLoBAL quasars contain high ionization and low ionization broad absorption lines as well as iron lines and can contain the most powerful outflows, which provide information about galaxy evolution. Our group models FeLoBAL quasars using the novel spectral synthesis code SimBAL, which uses Markov Chain Monte Carlo methods to fit a model to the spectra and derive the physical parameters of the absorbing gas from that model. In this talk, we discuss a sample of high redshift, high luminosity quasars. As higher luminosity quasars are associated with faster outflows, we can obtain more information about quasar outflows and physical gas properties. After modeling our objects using SimBAL, we used the derived physical parameters to determine how many objects had sufficiently powerful outflows ($L_{KE}/L_{bol} > 0.005$) and we also analyzed the differences between objects in a previously studied low redshift sample and the objects in our sample.

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